



STEP 4

SECURE EQUIPMENT AND SUPPLIES

Creating an effective portable dental environment requires special attention to supplies, materials and infection control. Equipment must be easily transportable and operate effectively when it is set up. Adequate supplies must be transported in a manner that maintains appropriate infection control. Portable dental equipment folds up and packs into carrying cases for light weight transport. A list of manufacturers FOLLOWS THIS STEP. The exact type of equipment will depend upon the size of the program, the number and types of providers, and the method used for sealant application.


PORTABLE EQUIPMENT COMPONENTS

The portable equipment needed includes a dental unit, air compressor, patient chair, light, operator stools, ultrasonic cleaner, autoclave and visible-light curing light units (if using light-cured sealant).

Dental Units The unit must contain highspeed evacuation and an air/water syringe with a self-contained water source. Low volume vacuums in most of the portable units is not sufficient to maintain a dry field. Optional equipment may include low volume vacuum, high and low speed handpiece attachments. Additional air-dryer attachments can be ordered with some equipment to minimize moisture that can develop in the air lines. Vacuum content bottles can be ordered in larger sizes to decrease the number of times they must be emptied during a working day. Large programs, or programs that wish to expand services, may want dental units with high and lowspeed attachments as well as high and low volume vacuum systems. Some types of portable dental units cannot operate handpieces and vacuum simultaneously.

Compressors Dry, oil-free air is essential for the application of sealants. Select an oil-less compressor considering weight, cost, horsepower, and the size of the air storage chamber. Compressors with small air storage chambers are lighter and smaller but less durable than larger ones. Oil-less compressors are noisy. Large compressors run less frequently so there is less noise. Extra long hoses (25 foot) are available to be purchased separately and allow compressors to be located away from the sealant placement area.

Patient Chairs Choose a patient chair that is durable, lightweight, folds easily, holds a person of average weight, is adjustable in height and back tilt and has a carrying case. Use caution when seating children since a source of accidents has been children taking a seat on the end of the patient chair. Use the patient chair with the end unfolded or place a student desk chair underneath the end of the chair to discourage children from sitting on it. Lower cost alternatives include lawn chairs or chairs made of cardboard.



Light A light with an intensity of 1800 candle power, or more, is preferred. Consider cost, weight ability to adjust and ease of bulb replacement.

Operator and Assistant Chairs Chairs that have an adjustable seat and back height will be most comfortable for sealant providers. Chairs with a wide base are less likely to tip. Operators, in school settings, have reported more accidents using the stools with wheels, probably due to the smaller wheelbase. If space permits, small stools or chairs can be purchased from office suppliers less expensively than chairs designed specifically for portable dental environments.

Fans Room temperatures and working environments in schools are variable. Fans are important for comfort and to extend the working time of autocure sealant. Box style fans can be used.

STERILIZER EQUIPMENT

Ultrasonic Cleaner Clean instruments prior to sterilization. The use of an ultrasonic cleaner decreases the likelihood of personal injury.

Autoclave OSHA and WISHA infection control requirements must be followed. Size and width are the most important consideration in selecting a sterilizer. If instruments are autoclaved at the sealant site, a lightweight sterilizer is critical. If instruments are sterilized at a different location, more instruments will be required. Steam, dry heat or chemical vapor sterilizers are available. Steam sterilizers that have six-minute cycles compensating for their small chamber size are available. Autoclave (steam/chemical vapor) **MUST** be tested each week. Resterilize instruments if not used within a month.

SUPPLIES

Isolation Aids **A tooth must be dry for sealant retention.** Dental assistants can aid in maintaining a dry field by retracting cheeks or tongue and using high volume vacuum. To improve evacuation, place the evacuator tip as close and horizontal to the surface of the tooth as possible. Maintain vacuuming while drying the tooth. During placement and curing or setting of the sealant, keep the high vacuum away from the tooth surface to avoid removing the sealant material before it has hardened.

☐ **Garmer clamps/cotton roll holders** The use of garmer clamps is essential when working without a dental assistant. Order an equal number of adult and junior sizes.

☐ **Other isolation aids** Dri-angles, dry tips, cotton rolls, disposable cotton roll holders, and/or disposable mouth props may be used to assure proper isolation.



Mirrors

The amount of mirrors needed depends upon the size of the sealant program and sterilization methods. Disposable mirrors can be used for the screening examinations.

Explorers

Explorers are not routinely required to evaluate teeth for sealant placement. They can be used to apply sealant to the pits and fissures. Also they are needed to evaluate sealant retention. In selected cases dentists may also request explorers for the screening examination. Order explorers dependent upon the size of the sealant program and sterilization requirements.

Sealant Placement Instruments

Explorers, dycal instruments, perio probes can be used to place sealant and result in the thinnest of dental sealants. Carrier systems for dispensing and placing sealant directly to the teeth must be purchased in sufficient quantity to allow for sterilization between students. Choice of placement instrument can also depend upon operator preference and the brand of sealant material.

Sealant Etching Materials

Quik pics, cotton balls or brushes are adequate for applying etch. Quik pics are popular and easy to use.

Sealant Material

Visible light cured sealant or autocuring sealant material is recommended. Some evidence indicates that autocuring sealant results in slightly better long-term retention of sealant. Light cured sealant allows a clinician more variety in working time that may be helpful to maintain a dry field. Ultraviolet light cured sealant is not recommended!

Curing Lights

Use visible light curing units with an audible tone to indicate curing time. A curing light guide with a diameter greater than 12mm will reduce curing time for large occlusal surfaces. These units can break and lose their effectiveness even when the light remains visible. A radiometer should be used ROUTINELY to measure effectiveness of light.

PURCHASING SUPPLIES AND EQUIPMENT

Most manufacturers and dental supply companies give government agencies and schools reduced institutional prices. Try to negotiate depending upon volume of the order. Some equipment, such as compressors, may be purchased retail. (such as Sears). Your local health organization will determine the protocol for purchases. Some agencies require vendors to submit formal bids. Be exact with the equipment specifications (size, weight, horsepower, foot-candles and portability) to avoid accepting equipment that is the lowest bid but does not meet program specifications. After equipment is delivered, unpack all dental materials carefully and be familiar with all instructions about operation, care and maintenance. Manufacturers representatives may be available to train staff in the set-up, use, and maintenance of the portable dental equipment.



Dental Sealant Program Recommended Supply List

Provider and Patient Protection

- * Air-water syringe tips(disposable)
- * Bib clips
- * Bib
- * Eyewear(for provider and patients)
- * Gloves
- * Gowns(laundry service)
- * Hand soap
- * Hand wipes
- * Head rest chair cover
- * Plastic sleeves for air/water syringe, vacuum and hoses
- * Curing light handle covers
- * Curing light
- * Curing light tip covers
- * Surface covers(plastic roll)

Patient Treatment

- * Cotton roll holders/Isolators
- * Cotton rolls
- * DriAids,Dry Tips, Dry Angles
- * Etching Liquid
- * Evacuator tips
- * Explorers
- * Mirrors
- * Pencils, Stickers(Incentives)
- * Sandwich bags for toothbrushes
- * Sealant material (Autocure/Light cure)
- * Etch applicator(brush, quick tip cotton pellet)
- * Disposable mouth props

Sterilization and Disinfection

- * Autoclave/Sterilizer bags
- * Autoclave/Sterilizer cleaner
- * Autoclave/Sterilizer Spore test kits and service
- * Autoclave/Sterilizer indicator tape
- * Surface Disinfectant
- * Distilled water
- * Gauze squares
- * Chemical disinfectant
- * Refillable spray bottles
- * Paper towels
- * Trashliners
- * Ultrasonic cleaner solution
- * Vacu-Cleaner
- * Tubs(Rubbermaid type) for contaminated instruments

Additional Supplies

- * Heavy duty extension cords
- * Power strips
- * Tool kit for equipment repairs(alan wrench, duct tape)
- * Cooler for sealant material storage
- * Office supplies(stapler, paper clips, tape, pens, extra forms, etc,)
- * Electrical plug strip
- * Plug converter
- * Table covers
- * Clock with second hand
- * Radio/music
- * Tubs(Rubbermaid type) for transporting supplies



Costs/Budget

Item	Number Needed	Cost/Unit	Total Cost
Equipment choices			
Staff choices			
Supply choices			
Total			

1999 Retail Portable Dental Equipment Costs

Unit	2295.00
Patient Chair	1295.00
Light	695.00
Compressor	1095.00
Operator Stool	495.00
Assistant Stool	495.00
Steam Sterilizer	2000.00
Ultrasonic Cleaner	300.00
Total Equipment Cost	8670.00

Please note: This document does not contain any appendices. If you would like to obtain these materials please contact Ethel Steinmetz at (360 236-3507 or Ethel.Steinmetz@doh.wa.gov)